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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Minneapolis, MN 55402-0903

EXAMINER

ARNOLD, ERNST V

ART UNIT	PAPER NUMBER
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1616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/518,784	Applicant(s) BIERING ET AL.	
	Examiner ERNST V. ARNOLD	Art Unit 1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/20/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claims 1-13 have been cancelled. Claims 14-22 are new.

Comment: Please insert the continuity information at the top of page 1 of the specification.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The disclosure is objected to because of the following informalities: on page 6, line 19 and page 8, line 24, reference is made to "E4". "E4" does not exist. On page 6, line 20, reference is made to solutions C1 to C4 in Table 1. There are no C1 to C4 solutions in Table 1.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 20 contains the trademark/trade name Glucoprotamine®. Where a trademark or trade name is used in a claim as a limitation to identify or describe a

Art Unit: 1616

particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe reaction products and, accordingly, the identification/description is indefinite.

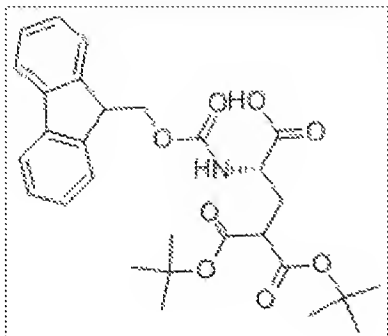
Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 20 recites: "the reaction product of a propylenediamine with glutamic acid or a glutamic acid derivatives to form the reaction product commercially known as Glucoprotamine®." It is unclear how a single product Glucoprotamine® can be made with different starting materials of different structures because the claim language does not limit the structure of the genus of propylenediamines and the claim is drawn to 'glutamic acid derivatives' which could be anything but glutamic acid. For example, it is unclear how a propylenediamine would react with this glutamic acid derivative to produce the specific product Glucoprotamine®:

Art Unit: 1616



Correction is required. Claim 22 is also rejected as indefinite because it is dependent on an indefinite base claim.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 22 recites the limitation "the alcohol" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Fowler et al. (US 5635469).

Art Unit: 1616

Fowler et al. disclose a foam cleansing product comprising from about 0.1% to about 20% of a mixture of amphoteric and nonionic surfactants, which are capable of generating foam in the presence of an amine, further comprising a first antimicrobial containing an amino group (p-aminobenzoic acid in inherently antimicrobial) and a second antimicrobial agent (erythromycin or chlorhexidine, for example) (claims 1-13 and column 17, lines 1-26). Thus instant claim 14 is anticipated. The foam contains betaines which is synonymous with acetobetaine (claim 9) which anticipates instant claim 16. The antimicrobial can be present from 0.01 to about 20% (column 14, lines 36-43). Water is present from about 35% to about 99.65% (claim 1 and column 13, lines 10-11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 14-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fowler et al. (US 5635469) and Buskirk et al. (US 5856290).

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Applicant claims:

14. (New) A water-based foam disinfectant comprising:
 - a) about 0.1 to about 10% by weight of a surfactant system comprising:
 - i) at least one nonionic surfactant; and
 - ii) at least one amphoteric surfactant,wherein the nonionic surfactant and amphoteric surfactant are capable of generating foam in the presence of an amine;
 - b) a first antimicrobial agent containing an amino group; and
 - c) a second antimicrobial agent.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Fowler et al. teach foam compositions with from about 0.1% to about 20% of a surfactant mixture of nonionic and amphoteric surfactants that can also comprise one or more antimicrobial actives (Abstract; Examples I-VIII; and claims 1-13). Surfactant that can be used include a wide variety of amphoteric and nonionic surfactants (column 4, lines 53-65) such as alkyl polyglycosides (column 5, lines 1-15) and ethoxylates of fatty alcohols (column 5, lines 30-56 and column 7, lines 25-37). Especially preferred amphoteric surfactants are betaines which is synonymous with 'acetobetaines' (column 7, lines 1-16). Cationic quaternary ammonium compounds are also taught (column 7, lines 40-67 and column 8, lines 1-42 and claim 7).

Buskirk et al. teach disinfectant cleaner compositions having alkyl polyglycosides and N-substituted propylene diamines with linear alkyl groups with 6 to 22 carbons (Abstract; column 5, lines 7-16; Table 3 and claims 1-3). Disinfectant 1 is the reaction product of coconut propylene-1,3-diamine with L-glutamic acid and fatty alcohol ethoxylates are taught (column 3, lines 22-42; column 4, lines 1-5 and column 6, lines 30-50). Organic solvents such as alcohols of 1 to 4 carbons are taught including ethanol (column 5, lines 49-54). Quaternary ammonium compounds are taught (column 4, lines 13-27). Buskirk et al. teach 0.1 to 20 wt% of the alkyl polyglycoside (note that while Buskirk et al. teach oligosaccharide it is still polymeric) and 0.05 to 20 wt% of fatty alcohol ethoxylate and a combination of disinfectant substances in a quantity of 0.01 to 5 wt% (column 4, lines 55-67). Betaines are taught for use in the invention (Table 3).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

1. The difference between the instant application and Fowler et al. is that Fowler et al. do not expressly teach a single embodiment that includes fatty alcohol ethoxylates in the composition in the ratio instantly claimed.

2. The difference between the instant application and Fowler et al. is that Fowler et al. do not expressly teach adding the antimicrobial agent of instant claim 20 or alcohols to the foam composition. This deficiency in Fowler et al. is cured by the teachings of Buskirk et al.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

1. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add fatty alcohol ethoxylates in the amounts instantly claimed, as suggested by Fowler et al., and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Fowler et al. suggest adding fatty alcohol ethoxylates and it is simply a matter of routine optimization by the ordinary artisan. The total surfactant mixture can be from about 0.1% to about 20% of the composition. Thus, one of ordinary skill in the art can envision a composition with 12% fatty alcohol ethoxylate; 5% alkyl polyglycoside; and 3% betaine, which is equivalent to 6:2.5:1.5 of each component when divided by 2, and falls within the instantly claimed ratio. The amount of a specific ingredient in a composition is clearly a result effective parameter that a person of ordinary skill in the art would

Art Unit: 1616

routinely optimize. Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal amount of each ingredient needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of ingredient amounts would have been obvious at the time of applicant's invention.

2. It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to add the antimicrobial agent of instant claim 20 or alcohols to the foam composition, as suggested by Buskirk et al., and produce the instant invention.

One of ordinary skill in the art would have been motivated to do this because Fowler et al. teach adding antimicrobial agents and Buskirk et al. teach the instant compounds of claim 20 as antimicrobials. Furthermore, ethanol is taught as a solvent for such antimicrobial compositions by Buskirk et al. and is known in the art for its antimicrobial activity. "It is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." In re Kerkhoven, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

Art Unit: 1616

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernst V. Arnold whose telephone number is 571-272-8509. The examiner can normally be reached on M-F (7:15 am-4:45 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 10/518,784
Art Unit: 1616

Page 11

/Ernst V Arnold/
Primary Examiner, Art Unit 1616